

spotlight

No. 454 – May 20, 2014

EDUCATIONAL FREEDOM WORKS

Scholarly research shows gains from school choice and competition

EXECUTIVE SUMMARY

- **This study synthesizes findings from 888 articles published in peer-reviewed journals or by the National Bureau of Economic Research since 1990. We focus on studies that explore relationships between inputs or policies (such as per-pupil expenditure, average teacher salary, class size, performance pay, and school choice) and student outcomes (such as test scores, dropout rates, and college attendance).**
- **In our survey, we found 116 studies that explored the link between per-pupil spending and student outcomes. Higher spending was associated with higher student performance only 32 percent of the time, after adjusting for student background and other factors mostly or entirely outside the control of schools. Similarly, of the 90 studies examining the link between average teacher salaries and student outcomes, 56 percent found mixed or statistically insignificant results.**
- **Of the 132 studies probing the relationship between years of teaching experience and effectiveness in the classroom, only 41 percent found a positive effect. The results were far worse for teachers with graduate degrees, a variable included in 114 studies. There was a positive relationship with student outcomes only 16 percent of the time.**
- **The available evidence on performance pay shows promise. Of 34 studies examining teacher incentives for individual performance, school-wide performance, or both, 61 percent found statistically significant gains in student outcomes. The design of performance-pay models seems to matter a great deal, however.**
- **Based on these findings, we can say that in recent years North Carolina has been moving in the right direction on school reform, enacting policies that will likely improve the efficiency and efficacy of our education system in the coming years. Policymakers should continue the momentum and resist attempts to backtrack from the significant accomplishments already achieved.**

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When it comes to education policy, everyone is an expert, or at least claims to be. Many North Carolinians either work in schools or have spouses or other family members who work in schools. Most North Carolinians attended and graduated from public schools. We all have opinions about how the state can succeed at the task of preparing our young people for future roles as skilled workers, creative entrepreneurs, committed parents, and engaged citizens. Some of these opinions come from personal experience. Others reflect what we see, read, or hear about education policy in the news media or political campaigns.

When governors, state legislators, county commissioners, school board members, and other officials craft and implement education policy, however, they need to base their decisions on more than just folk wisdom, anecdotes, or newspaper editorials. They are spending billions of taxpayer dollars and touching millions of lives every year. It is their responsibility to make these decisions on the best available empirical evidence about how education systems really work — and what makes some more effective than others at preparing students for careers, college, and citizenship.

This paper gives North Carolina policymakers a place to start. Using a comprehensive review of modern scholarly research on education policy, we describe the core elements of successful education systems in America and around the world. We show that some familiar school reforms have lackluster effects on boosting student achievement while others show promising results. Above all, we demonstrate that the very factors that produce high performance in other industries and professions — factors such as entrepreneurship, choice, and competition — also produce high performance in education.

Based on these findings, we can say that in recent years North Carolina has been moving in the right direction on school reform, enacting policies that will likely improve the efficiency and efficacy of our education system in the coming years. Policymakers should continue the momentum and resist attempts to backtrack from the significant accomplishments already achieved.

Review Methodology

In a previous study, JLF surveyed hundreds of peer-reviewed studies of economic growth policies at the state and local levels. Initial results appeared in John Hood's 2012 book *Our Best Foot Forward: An Investment Plan for North Carolina's Economic Recovery*. The project concluded in April 2014 with the publication of a Spotlight report entitled "Lower Taxes, Higher Growth," which summarized the findings of 681 studies published in academic or professional journals since 1990 that explored relationships between state or local policy and measures of economic performance such as employment, job creation, income growth, population growth, business starts, or investment flows.

Education was the subject of two categories of findings in that initial research review. First, most academic studies concluded that states or localities with higher levels of student achievement or educational attainment had higher rates of economic growth, all other things being equal. Second, most studies did **not** conclude that states or localities with higher levels of spending on education had higher rates of economic growth.

How could both sets of findings be true? If educational quality is a critical component of economic success, why don't states experience stronger economic growth when they spend more money on education? A reasonable interpretation of the results would be that government spending on education has no consistent, statistically significant relationship with student achievement or educational attainment. If states, local districts, or even individual schools vary widely in their ability to turn educational inputs into educational outputs, then simply pumping more tax dollars into the system would not necessarily constitute effective investment in education, and thus no economic benefits would be evident.

This was a *potential* explanation of the results, however. It was not itself a finding of our initial literature survey. So we decided to conduct a second survey — a larger and more complicated one, as it turned out. Our purpose was to

summarize and convey the findings of modern academic scholarship about the relationship between public policy and school outcomes.

We began with the same basic structure, focusing only on articles published in peer-reviewed journals or by the National Bureau of Economic Research, one of America's best-respected research organizations. Although we place a high value on work published by other organizations, such as think tank studies and government reports, we did not include them in this study. As of May 2014, our database contains 888 articles published since 1990 that explore relationships between inputs or policies (such as per-pupil expenditure, average teacher salary, class size, performance pay, and school choice) and student outcomes (such as test scores, dropout rates, and college attendance). Although we did not include studies that focused on subjective outcomes such as student attitudes or parental satisfaction, our search was not limited to traditional measures of academic achievement. For example, some studies evaluated school performance according to long-term effects on former students in such areas as employment rates, average wages, criminality, and civic engagement. We included these studies in our review, which provided a wealth of insights about the propensity of certain education policies to accomplish their ultimate ends.

We found that dozens of academic journals had published at least one relevant article on educational effectiveness during the past quarter century, although publications specializing in educational evaluation, public policy analysis, human capital, and the economics of schooling accounted for a disproportionate number of the studies in our database. These include the *Economics of Education Review* (111 articles), *Educational Evaluation and Policy Analysis* (35), *Education Economics* (26), *Education Policy Analysis Archives* (20), *Journal of Public Economics* (19), *Sociology of Education* (19), *American Educational Research Journal* (18), *Journal of Policy Analysis and Management* (16), *Journal of Human Resources* (16), *Journal of School Choice* (15), *Journal of Labor Economics* (14), *Education Finance and Policy* (14), *Journal of Educational Research* (13), *American Journal of Education* (11), *Educational Administration Quarterly* (11), *Educational Researcher* (9), *Peabody Journal of Education* (9), *Journal of Education Finance* (8), *Education and Urban Society* (6), *Teachers College Record* (6), and *Comparative Education Review* (6).

Other prestigious journals represented in the survey include the *Review of Economics and Statistics* (13), *Quarterly Journal of Economics* (12), *American Economic Review* (11), *Journal of Urban Economics* (9), *Economic Journal* (7), *American Sociological Review* (5), and *Econometrica* (4).

In some cases, the articles focused directly on a public policy intervention such as raising teacher pay, reducing class sizes, or using charter schools and vouchers to expand choice and competition. In other cases, the authors were exploring different issues — such as the effects of socioeconomic background on student test scores — and used public policy variables in their equations. For each variable of interest, we coded the study's findings as 1) negative and statistically significant, 2) positive and statistically significant, or 3) mixed or statistically insignificant.

As nearly all of the 888 studies examined more than one variable, there are actually 1,641 separate findings in the database. For some topics, such as the effects of year-round schooling on educational outcomes, we do not yet have enough studies in the database to draw even preliminary conclusions. The remaining 1,610 findings in the database can be divided into three broad categories: **financial and structural variables** such as per-pupil expenditures, teacher salaries, and school size (598 findings); **teacher-quality variables** such as years of experience and educational preparation (380); and **education reform variables** such as instituting rigorous testing, decentralizing authority to districts and schools, paying teachers for performance, and expanding school choice and competition (632).

Findings on Financial and Structural Factors

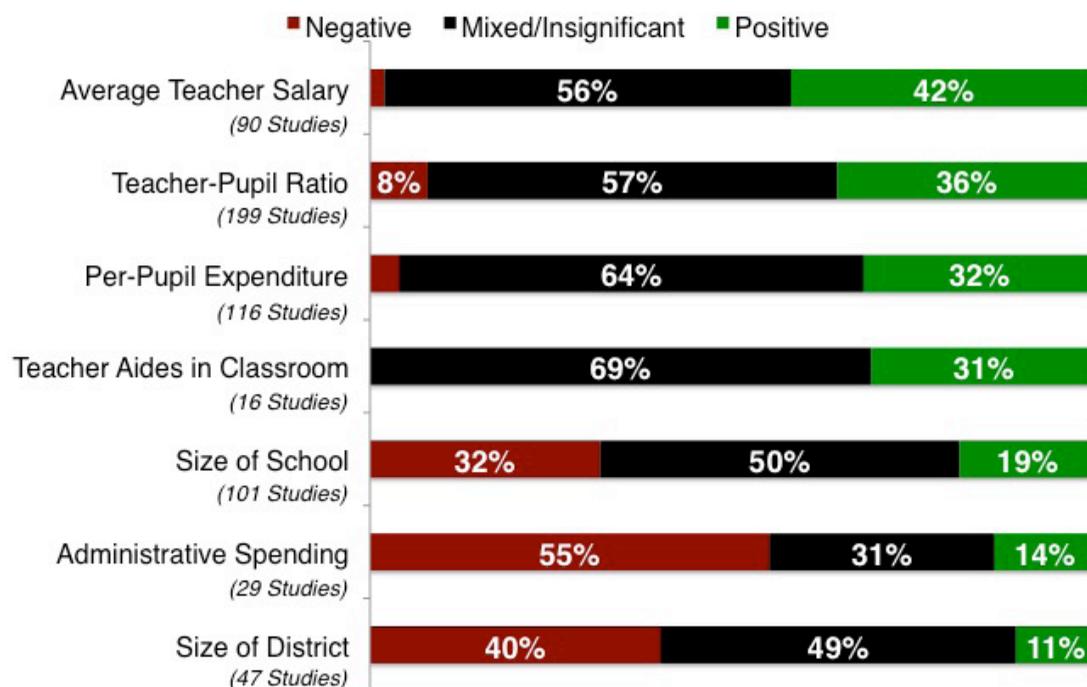
In 1966, a research team led by sociologist James Coleman delivered a report to the U.S. Congress demonstrating that per-pupil expenditures and other frequently measured school inputs have no consistent, statistically significant

relationship to student outcomes. The Coleman report observed that student background and socioeconomic factors were strongly related to outcomes, and that school effectiveness varied for reasons other than just access to resources.¹

Over the next several decades, dozens of social scientists tested, refined, and expanded on the findings of Coleman’s research team. The subject is complicated and often misinterpreted. To say, for example, that student background strongly influences student outcomes is not to say that schools never matter. And to say that there is no clear relationship between per-pupil expenditures and outcomes is not to say that resources never matter. A school spending \$20,000 per student is likely to produce higher-achieving students than a school spending \$2,000 per student. But in the real world of American education, real resource differentials are not nearly so large, particularly after adjusting for local costs and in jurisdictions such as North Carolina where the majority of school funding comes from state income and sales taxes, not local property taxes.

Nevertheless, the general consensus of the past 25 years of scholarly research is fully consistent with Coleman’s original thesis (see Chart 1). In our survey, we found 116 studies that explored the link between per-pupil spending and student outcomes. Higher spending was associated with higher student performance only 32 percent of the time, after adjusting for student background and other factors mostly or entirely outside the control of schools. Similarly, of the 90 studies examining the link between average teacher salaries and student outcomes, 56 percent found mixed or statistically insignificant results. On class size, while some experimental evidence suggests that smaller classes produce better outcomes, 57 percent of the 199 studies published since 1990 found mixed or statistically insignificant effects from variations in average class sizes or teacher-pupil ratios in schools. Expenditures on administration and teacher assistants have not been studied nearly as often. Still, the available research suggests that they do not boost student achievement, and indeed high levels of administrative spending may well hinder it.

Chart 1:
Relationship between Financial/Structural Variables and Student Outcomes



The empirical findings on two other issues of interest — school size and district size — are fascinating. In general, there appears to be no consistent relationship between student outcomes and school size (101 studies) or district size (47 studies). However, these broad observations mask some important distinctions. A large number of studies found that both very small schools (with fewer than, say, 300 students) and very large schools (with more than 1,500 students) tend to produce below-average outcomes. Similarly, merging far-flung rural school districts with a few hundred students each into larger districts with several thousand students each tends, all other things being equal, to result in higher efficiency and student outcomes. But when school districts grow very large — certainly more than 25,000 students — the effects turn negative. “The basic story,” wrote three Syracuse University scholars in a review of the available research, “seems to be that moderation in district and school size may provide the most efficient combination.”²

Unfortunately, our state isn’t moderate when it comes to the structure of our public education system. School sizes in North Carolina are 15 percent higher than the national average for elementary grades and 20 percent higher for secondary grades. And average enrollment in North Carolina’s school districts is more than 3.5 times that of the average district in the United States.³ There are 13 districts in North Carolina with enrollments exceeding 25,000, including two — Wake and Charlotte-Mecklenburg — with more than 140,000 students each. They are among the largest districts in the country, and far above the point of positive returns to scale.

One potential explanation for the adverse fiscal and educational effects of very large schools and districts will become evident when we discuss research findings about the benefits of school choice and competition. As for the earlier findings on educational spending, here’s one way to understand them. If the goal is to maximize student success, should schools spend their money hiring new teachers (thus reducing class sizes) or paying their existing teachers more money? The correct answer, however frustrating it might be for some policymakers, is that **it depends**. Neither policy has consistent effects, according to the preponderance of empirical research. There can be benefits from the greater attention students receive in small classes, particularly for at-risk pupils in early grades. But individual teachers are not equally effective at their jobs. There can also be academic benefits from exposing more students to excellent teachers in somewhat-larger classes, particularly in the later grades. These findings suggest that the best policy is to allow schools more flexibility in allocating resources, an issue we also discuss later in this paper. “The more natural way to think about this,” wrote Stanford University economist Eric Hanushek, “is for local personnel to make decisions that incorporate information about the relevant teachers and circumstances.”⁴

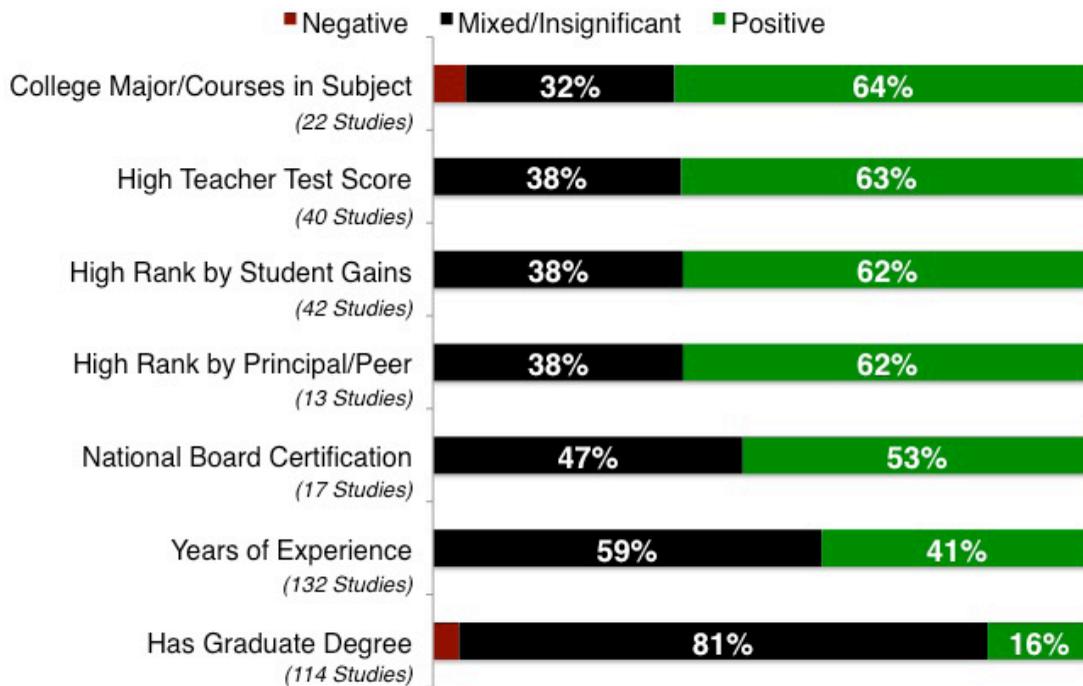
Findings on Teacher Quality

To understand why average teacher salaries don’t seem significantly correlated with outcomes requires a deeper exploration of research findings on teacher characteristics. These are summarized in Chart 2.

In North Carolina, as in most other states, teacher pay is determined largely by seniority and credentials. Teachers gain step increases in pay as they accumulate more years of experience. Teachers gain additional salary bumps by obtaining graduate degrees, usually from schools of education, and sometimes by achieving national board certification. If experience, education, and board certification were consistently linked with student performance, then average teacher salaries could be expected to exhibit a similar connection.

But that’s not what the scholarly research of the past quarter-century reveals. Of the 132 studies probing the relationship between years of teaching experience and effectiveness in the classroom, only 41 percent found a positive effect. The results were far worse for teachers with graduate degrees, a variable included in 114 studies. There was a positive relationship with student outcomes only 16 percent of the time.

**Chart 2:
Relationship between Teacher Quality Variables and Student Outcomes**



As with school and district size, the overall results obscure some important subtleties. A significant number of studies of teacher experience found that it did matter at the front end, during the first few years of a teacher’s career, after which it leveled off. In other words, while teachers with seven years of experience are often more effective than teachers with two years of experience, the difference in effectiveness between teachers with seven years of experience and those with 30 years of experience is often negligible. For example, a 2012 study by Jason Grissom of Vanderbilt University and Katharine Strunk of the University of Southern California compared the performance of school districts with “frontloaded” compensation systems to those offering greater rewards for years of experience. They found that “schools in districts with frontloaded salary schedules perform better in terms of student proficiency in reading and math at the fourth- and eighth-grade levels,” and that both struggling and gifted students benefit from the effect.⁵

The findings on teacher education also suggest some key distinctions. While the vast majority of teacher graduate degrees are in education, some teachers acquire advanced degrees in other subjects. There is some empirical evidence that teachers with graduate-level training in math have better success in the classroom than teachers without it, although the number of studies exploring the issue is small. What really seems to matter most is the extent of a teacher’s knowledge of the subject matter — but that knowledge need not be acquired in graduate school. We found 22 peer-reviewed studies that examined whether teachers have greater success in teaching a subject if they majored or took significant coursework in it during their undergraduate or graduate studies. Positive effects were evident 64 percent of the time, although once again most of the findings involved math instruction. Similarly, we found 40 academic studies in which researchers evaluated teacher quality on the basis of teacher scores on the SAT, other aptitude tests, or certification exams. In 63 percent of the studies, students of high-scoring teachers outperformed those of low-scoring teachers, all other things being equal, although the effect size, while statistically significant, was sometimes rather small.

In 1987, a combination of political, business, and education leaders founded the National Board for Professional Teaching Standards (NBPTS). Its initial chairman was North Carolina's own Jim Hunt, who was in-between stints as governor at the time. NBPTS offers national board certification to teachers across the country. Some states encourage teachers to obtain board certification as a means of improving their skills or signaling their abilities. North Carolina offers the most generous incentives, including a 12 percent boost in pay for completing the process. Not surprisingly, our state has the highest share of nationally certified teachers in the country. In 2013, over 20,000 of the state's 95,000 teachers had national board certification.⁶

By our count, there have been 17 academic studies of national board certification published since 1990. Although there is little evidence that the *process* of obtaining certification has any effect on teacher effectiveness in the classroom, a slight majority of the studies found positive relationships between board certification itself and student outcomes. While hardly conclusive, these findings suggest that using board certification as a signal for teacher quality isn't unreasonable. It is a relatively expensive signal, however, and not a particularly strong one.

The most direct means of identifying teacher effectiveness, of course, is by observing teacher performance in the classroom and measuring how much their students learn as a result. But simply comparing test scores from class to class or school to school can't do the job. Students are not randomly distributed. Some classes may be full of high-achieving students from privileged backgrounds destined to test well regardless of how well their teachers do their jobs. Other classes may be full of at-risk students for whom proficiency might be a struggle in any event.

Beginning in the 1990s, scholars have developed increasingly sophisticated value-added assessments for measuring the growth in student test scores after taking their backgrounds and starting points into account. Although these tools are hardly perfect and need to be applied carefully, most scholarly research suggests that their results are reliable enough to be used for evaluating, managing, and compensating teachers. Specifically, 62 percent of the 42 relevant studies found that teachers with high-value-added scores in the past are likely to have high-value-added scores in the future — suggesting that the assessments are capturing something significant about teacher quality, not just reflecting the luck of the draw in student assignments. As Douglas Staiger of Dartmouth College and Jonah Rockoff of Columbia Business School put it in their influential 2010 study of value-added assessments: “Despite the fact that current estimates of teacher performance are fairly noisy, they can still be used aggressively to identify effective teachers and increase the overall quality of teaching in public schools.”⁷ North Carolina was one of the first states to begin compiling value-added data, and, as a result, the state has been a focus of much of the scholarly literature on the subject.

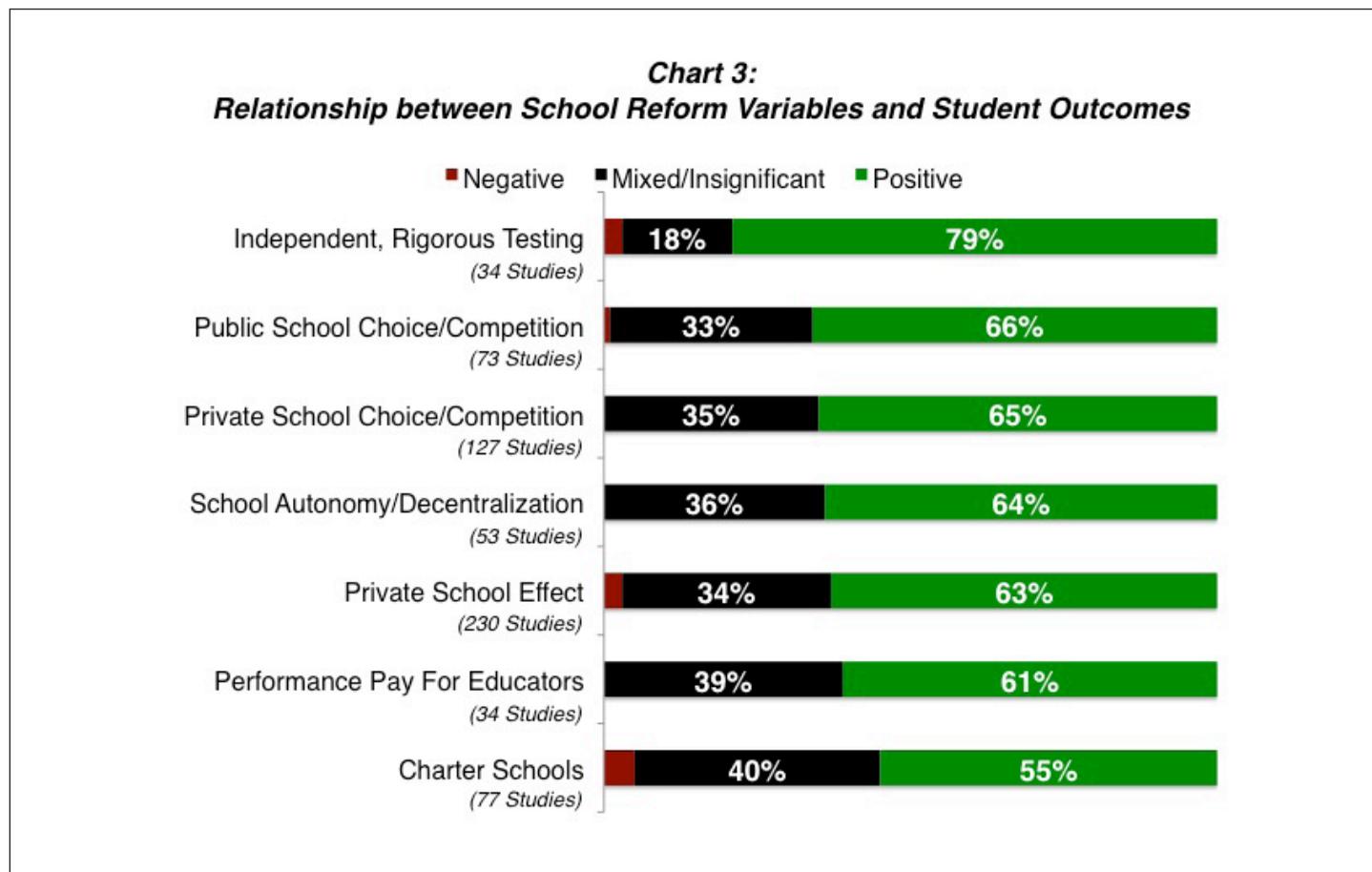
Even education experts with a high degree of confidence in value-added assessments tend to see them as only one element of an effective teacher-evaluation system. Another important element is direct observation of teacher performance, typically by school principals but sometimes by peer observers. Although scholars haven't studied the reliability of subjective evaluations as often as they have value-added systems, the available evidence is suggestive. Principal evaluations tracked with objective data on teacher effectiveness in 62 percent of the studies we found. The effect was strongest on each tail of the teacher-quality distribution. In other words, teachers ranked very high by principals tended to rank very high in value-added assessments of student test scores. Teachers ranked very low by principals tended to rank very low in value-added. A 2011 study by Thomas Kane, Eric Taylor, and Amy Wooten of Harvard University and John Tyler of Brown University found strong support for the idea of using both value-added data and principal evaluation in decisions about teacher retention and compensation. “A teacher's past student achievement gains are a good predictor of future achievement gains,” they wrote, “but measuring classroom practice likely improves the prediction.”⁸

Findings on Education Reform Variables

During the 1980s, 1990s, and 2000s, as policymakers digested the findings of the Coleman report and other empirical research, many began to turn away from resource-based strategies for educational improvement and instead embraced structural reforms in the education system itself. Ideas such as regular testing of students, devolution of authority to districts and schools, the creation of new “chartered” public schools, and the expansion of parental choice and school competition gained increasing support. Many of these reforms borrowed heavily from public policies already in place in European and Asian countries with education systems that produced higher student performance at a lower cost than American systems did.

We found 632 scholarly studies published since 1990 that examined the effects of one or more of these structural reforms. While some policies have been in place in American states or localities for relatively short periods, making possible only preliminary findings, they have often been in place far longer in other countries. In some European countries, for example, tax funding of private schools has been standard practice for the better part of a century. Some Asian countries have had centralized, rigorous student testing for a similar period of time. These varying approaches to education policy have enriched the research literature, giving North Carolina policymakers valuable insights about the operation of reform initiatives in real-world situations.

On standardized testing, there is simply little room for serious debate. In more than three-quarters of the academic studies, states or nations that adopt centralized, independent, and rigorous student assessments tend to have higher student outcomes — including higher rates of graduation, college participation, and career success. It is important to remember, however, that most countries are far smaller than the U.S. in size and population. “Europe” and “East



Asia” don’t have centralized annual examinations. Their respective nations do. Many countries with high-achieving students and highly rigorous national tests have fewer schoolchildren than the state of North Carolina does. At the same time, virtually all developed countries and an increasing number of developing countries participate in periodic international tests of student performance such as PISA (Program for International Student Assessment) and TIMSS (Trends in International Math and Science Study). These tests serve as external checks on the rigor of national and regional exams.

Emulating the successful testing practices of European and Asian countries, then, does not require that all American states administer the same tests to the same grades of students every year. Instead, states can and should choose one of several competing national tests, such as the Iowa Test of Basic Skills or perhaps the new Common Core assessments, for annual assessment and then participate in the rigorous National Assessment of Educational Progress (NAEP) every two years as an additional, external check of the validity of their testing programs.

While academic research is supportive of the policy of centralizing authority when it comes to testing and accountability systems, the verdict is quite different with regard to other educational decisions such as hiring and compensating teachers. Out of 53 studies of educational governance in America and around the world, 64 percent found positive relationships between student outcomes and decentralization. As districts and particularly schools gain more autonomy to make operational decisions, students appear to make larger gains in test scores and other performance measures. As discussed earlier, many educational decisions depend on highly localized information. While hiring additional teachers to reduce class sizes might make sense in one case, maintaining a high level of teacher quality through performance-based salary increases might make more sense in another case — even if classes are somewhat large as a result. Devolving power and giving districts and schools more autonomy appears to result in the most efficient use of resources to enhance student achievement.

As to performance pay itself, the available evidence shows promise. Of 34 studies examining teacher incentives for individual performance, school-wide performance, or both, 61 percent found statistically significant gains in student outcomes. The design of performance-pay models seems to matter a great deal, however. If the performance bar is set so low that nearly all teachers and schools can clear it, the benefits are modest, if any. On the other hand, if the performance bar is set so high that the vast majority of teachers and schools have no realistic prospect of clearing it, the benefits are also modest. The political pressures against performance-pay programs are considerable, so keeping them in place long enough to make a difference — and to permit meaningful evaluation by independent researchers — is frequently a challenge.

In America, one model for enhancing school autonomy and clearing institutional barriers to reforms such as performance pay is the charter school. While they are public schools barred from selective admissions and required to teach the standard course of study, charter schools are governed by independent boards rather than district school boards and often use private contractors and nontraditional personnel and compensation policies to staff and operate their facilities. In exchange for greater freedom, charter schools receive less taxpayer funding than district-run schools receive.

Since their conception in the early 1990s, thousands of charter schools have cropped up across the country, including 127 in North Carolina (as of the 2013-14 school year). Initial research findings about student performance in charter schools were decidedly mixed, after adjustments for demographics and other background characteristics. Because nearly all charter schools were start-up organizations, rather than preexisting schools converting their status, it wasn’t at all surprising to see many charters struggle in their early years. But the aggregate performance of the charter school sector has improved markedly in recent years. Of the 77 academic studies we’ve been able to find on charter school performance, 55 percent found positive, statistically significant effects on student outcomes.

Despite their rapid growth, charter schools are not the primary means by which parents exercise choice within public education. Magnets, controlled choice and open enrollment plans within school districts, and inter-district choice plans already in operation in many states all promote competition within public schools. A number of other countries also have charter-like public schools that enjoying varying degrees of autonomy from provincial or national authorities. We found 73 scholarly studies of such policies. Public school choice and competition were associated with higher student outcomes 66 percent of the time. Researchers often model the degree of public school choice by constructing a Herfindahl Index (a technique borrowed from economic analysis of antitrust cases) to measure the number of schools available within counties, regions, or metropolitan areas. In practice, this form of school choice, while ubiquitous and apparently valuable in promoting school effectiveness, is easier to exercise when parents have the financial means to relocate to high-demand attendance zones. It is also easier to exercise when school districts are smaller and more numerous within metro areas than North Carolina's districts are.

In political terms, the most controversial school-choice policies are those that include tax breaks or vouchers for families who opt for private schooling. In academic terms, however, such policies are not nearly as controversial. For one thing, policies that facilitate private school choice and competition have been studied more extensively by academic researchers than many other reforms — 127 times, by our count, since 1990. In 65 percent of the studies, researchers found positive, statistically significant benefits for students. Moreover, on the closely related question of whether private schools really outperform public schools when adjustments are made for student demographics and other background variables, there is even more empirical research — 230 studies, by our count, since 1990 — and the findings are, again, favorable by a large margin, with 63 percent showing a positive “private school effect,” 34 percent showing mixed or insignificant effects, and only 3 percent (that's a total of 7 studies) showing that public schools outperform private ones with comparable students. While most studies find higher test scores in private schools, all other things being equal, the strongest effects are actually found for other measures such as dropout rates, high school graduation, higher education, and career success.

Implications

Although we doubt that the compilation of scholarly studies will end North Carolina's often-raucous political debate about education reform, we do hope that policymakers of all political persuasions will consider the findings of this literature review with an open mind. There are several clear policy implications:

- **There are no automatic benefits from raising government spending on education.** Even after the tight education budgets enacted in the aftermath of the Great Recession, North Carolina still spends \$9,109 per student on public schools, 86 percent higher in inflation-adjusted dollars than we did a generation ago.⁹ While spending more tax dollars on teacher salaries and other programs has the *potential* to benefit students if implemented effectively, the fundamental issue isn't financial. It is structural.
- **North Carolina's teacher salary schedule for district-run public schools should place greater emphasis on effort and effectiveness, with less emphasis on credentials and experience.** That means raising the starting salary, flattening out the pay scale, and paying teachers more for taking on challenging tasks such as teaching upper-level math and science courses or working with at-risk students. It also means using a combination of principal observations and value-added assessments to identify the state's highest-performing teachers and pay them substantially more, while encouraging the state's lowest-performing teachers to choose a profession more suited to their abilities (a process far easier to manage without teacher tenure). While there may be some incentive effects from performance pay, its primary purpose is to keep high-performing teachers in North Carolina classrooms.

- **North Carolina needs to adopt the right mix of centralized and decentralized authority.** On the one hand, the state desperately needs independent, reliable, and rigorous annual testing in North Carolina elementary and secondary schools. While some policymakers had hoped the forthcoming Common Core exams would fill this need, their costs appear to be extraordinarily high, and their content and design remain uncertain. Another reasonable approach would be to build on North Carolina’s adoption of the ACT battery of tests for high school students by adopting a similar, nationally normed test such as the Iowa Test of Basic Skills for earlier grades.

On the other hand, other key educational decisions — such as the design and implementation of teacher-pay programs — should be left to districts and schools rather than dictated from Raleigh. The combination of centralized accountability measures and decentralized operations is commonplace in most high-performing states and nations.

- **North Carolina should continue to encourage parental choice and school competition across the state.** By eliminating the statewide cap on charter schools and authorizing opportunity scholarships for thousands of low-income and disabled students, the General Assembly and Gov. Pat McCrory have laid the foundation. A broader set of options means that more students will enroll in schools that best meet their specific needs, while more educational providers — district-run public schools, charter schools, and private schools — will seek to improve the efficiency and quality of the services they provide.

“Policymakers who seek to cause improvement in student academic achievement should construct policies that encourage market competition between schools,” wrote Western Kentucky University economists Melvin Borland and Roy Howsen in a pivotal 2000 study of the effects of teacher salaries, class size, and other public policies on educational outcomes. “Given the results described in this paper, the degree of educational market competition is the most important variable over which control exists in which increases in student academic achievement are likely.”¹⁰

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Endnotes

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